

ABSTRACT

A communication system including an antenna array with feed network coupled to communication electronics. In one example, a communication subsystem comprises a plurality of antennas each adapted to receive an information signal and a plurality of orthomode
5 transducers coupled to corresponding ones of the plurality of antennas, each OMT is adapted to provide at a first component signal having a first polarization and a second component signal having a second polarization. The communication subsystem also comprises a feed network that receives the first component signal and the second component signal from each orthomode transducer and provides a first summed component signal at a first feed port and a second
10 summed component signal at a second feed port, and a phase correction device coupled to the first and second feed ports and adapted to phase match the first summed component signal with the second summed component signal.